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TREATMENT OF DISEASES OF THE LACHRYMAL SAC.

From an Article by Professor ARLT.*

[Translated for the Journal by HASKET DERBY, M.D.]

[THIS important subject seems in our community to be very generally misapprehended. The ophthalmic surgeon receives constant applications, from sufferers with such affections, for the insertion of the style or the passage of the probe from below into the nasal duct. And occasionally practitioners are found to be unaware that these methods are now happily obsolete. In the face of this it has seemed to the translator that the following selections from the able article just published by Professor Arlt, the occupant of the chair of Ophthalmology at Vienna, and one of the most eminent authorities of the day, might profitably be transferred to the columns of the JOURNAL.

The anatomy of the parts is first elaborately discussed and illustrated by various drawings from nature, sections of frozen heads being employed. From this the proper rules for the passage of the probe are deduced. It is shown that though, after the method of Bowman, the canaliculus be thoroughly divided, it can never be kept open through more than half its length, a fact that has an important practical bearing. Denuded bone and entire occlusion of the sac are declared to be of comparatively infrequent occurrence. And a guarded prognosis is advised in cases where there is much dilatation of the anterior wall of the sac; the flow of tears often continuing after the largest probes have passed, owing to the inability of the stretched fibres of the orbicularis to produce the compression necessary to expel the contents of the sac.]

I have for nearly ten years practised the dilatation of the natural passage exclusively on the plan of Bowman, with but slight modifications; the idea, however, on which I have proceeded, or rather to which the course of my observations has conducted me, is different from that which appears to have floated through the mind of the great reformer in the treatment of diseases of the lachrymal duct. I am of opinion *that so great a dilatation as is sought to be effected by the use of probes No. 5 and No. 6 of the Bowman series, is neither necessary to the restoration of the normal functions, nor devoid of danger.*

It is unnecessary; for during the last three or four years I have seldom used No. 5 and never No. 6, and have still effected many lasting cures. All this time, too, I have hardly had a case of obliteration of the canaliculus or nasal duct, following the probe treatment. It is the larger probes, in my opinion, which are apt to cause laceration and consequent closure of either of these places, even when properly introduced.

Let us consider what takes place *when the probe is passed through the lower canaliculus.* About 3‴ of it cannot be slit up, at any rate cannot be converted into a permanent open channel. The aperture of this portion is smaller than the diameter of No. 5. Granted that by the gradual passage from small to large probes we may even get in No. 6 without danger of disturbing the epithelial layer, we are by no means sure of not rupturing or lacerating the canaliculus. The line of direction of the lower canaliculus is set at an acute angle to the line of direction of the lachrymal duct. When the probe is raised, the end of the unslit portion must be dislocated and stretched in proportion to its length and the tenacity with which it encloses the probe which has been introduced. Neither the outer nor the inner end of the unslit portion admits of more than a moderate change of position, the inner end especially being a part where rupture cannot always be avoided, no matter how slowly the probe is raised. It is this rupture which I believe lies at the bottom of the subsequent closure. Take a case where No. 6 has been easily introduced, and where the intervals

* Archiv für Ophthalmologie. Bd. 14. Abth. 3. S. 267.

between the treatment are gradually allowed to grow longer, suddenly it will be discovered that no probe, or at most only a very small one, can be introduced. In this connection I should say that, in some cases where even No. 1 could not be passed, I have succeeded in introducing the conical probe, carefully observing the proper line of direction, and have then gradually been enabled to resume the use of the larger probes. I cannot, however, state whether entire occlusion did not in time ensue, it happening unfortunately that the patients absented themselves as soon as they ceased to be annoyed by lachrymation. If I could not succeed in this way, I slit up the upper canaliculus and probed through this.

I am not sure, but am fearful that the large probes may cause mischief in the nasal portion of the canal, the capacity of which is known—in the majority of cases—to be hardly above No. 4. When, after the removal of the probe, the patient has bleeding at the nose, I consider that there is a tendency to cicatricial contraction or obliteration, and I omit probing for several days. If the bleeding takes place at the first visit, I can only account for it by supposing the probe to have been improperly introduced or removed. And I may here say that I accomplish the latter manœuvre after fixing the head, and nearly as slowly as the former. If at a subsequent visit, and after the use of a larger probe, I get bleeding, I am apt to suspect that the size of the probe has given rise to a loss of epithelium or to rupture. If I have begun to use a larger probe, and get on withdrawal a feeling as though it were held fast by the passage, I interrupt the treatment for several days, and take next time a smaller probe. I sometimes use Nos. 3 and 4 and a rather slight No. 5, slightly bent and made of hardened caoutchouc, and these effect a passage in many cases where silver ones of the same size could not be introduced without danger of injury.

Probing through the upper canaliculus I have only employed in cases where the lower had grown up, after treatment by me or by others. Both the slitting up and the proper introduction of the probe into the sac present here, I think, extra difficulty, particularly when the brows are unusually prominent. In such cases it is not always easy to put the canaliculus on the stretch in the proper direction, that it may be correctly slit up; still less to keep it stretched and pass the end of the sound downwards and inwards along its anterior lower wall. But raising the probe is not only easier but less dangerous, inasmuch as the unslit portion of the canaliculus lies at a very obtuse angle to the line of direction of the lachrymal sac. Here, too, should the relative size of the probe be too large, we incur the danger of disturbing the continuity of the epithelial layer and rupturing the canaliculus. If we turn the probe without being certain that its end has reached the extremity of the canaliculus, we may pierce its walls and thus endanger the integrity of the lower canaliculus. The difference between this method and that of Anel consists in the slitting up of (the outer half of) the canaliculus; it allows the introduction of larger probes with much less violence, and consequently much less danger of catching the probe in the inner wall of the sac. The larger probes are more readily guided, more easily handled, and run less risk of penetrating the tissues than the fine ones which Anel was obliged to employ.

I have never practised the *method of Weber*.* When he published it I was trying that of Bowman, and in the course of this trial I became gradually convinced that the thing to be gained is not so much the smoothing out of the sides as the restoration and maintenance of a canal large enough to interpose no invincible obstacle to the fluid sent down by the action of the orbicularis. Is it to be supposed that Anel never wrought a cure with his thin probes? A reliable old practitioner, Dr. Schmalz of Pirna, assured me that he got his best results by the simple insertion of a thread (the method of Ad. Schmidt). Too much stress is not to be laid on the analogy with the urethra; for there we so often have an opportunity, by subsequent autopsy, of testing and confirming the correctness of our theories as to the position and consistency of the stricture, as to accumulate a certain amount of sound theoretical knowledge, bearing upon subsequent soundings and their significance. But in the case before us we rarely have a chance of gaining anything by dissection, while a knowledge of the relation of such results to our previous observations of the case, and to the action of caustics and probes, will

* A. f. O. Bd. viii. Abth. I. S. 94. [Instead of Bowman's probes, Weber proposed the employment of elastic urethral bougies of small size, stiffened with a central wire. In tight callous strictures to which this treatment was inapplicable, he employed conical metallic probes, the thin portion of which was constructed of hard, the thick of soft silver, and thus prepared the way for the introduction of the bougies. He moreover slit up the canaliculus as far as its entrance into the lachrymal sac, and the entrance to the sac itself, dividing the ligamentum mediale subcutaneously. He made his approach through the upper canaliculus.—H. D.]

long be a consummation devoutly to be wished for. The urethra is surrounded by soft, more or less elastic tissues; the nasal duct by bone. What becomes of the circulation in the mucous membrane imprisoned between the bone and the probe or bougie? What state of things supervenes directly on such imprisonment? May it not happen, during the passage or withdrawal of probes that enlarge after introduction, that the union between the mucous membrane and the bone gives way more readily than the adhesion between the probe (bougie) and the mucous membrane? The diseases of the urethra generally result from local irritation; the mucous lining of the lachrymal sac is hardly accessible to aught else than the tears. It is a well-known fact that even in conjunctival blennorrhœa (acute, chronic, of the new-born, or of adults) it is seldom we see an invasion of the mucous membrane of the lachrymal sac. Nearly all diseases of the lachrymal sac are to be traced to a chronic catarrhal inflammation of its mucous lining, and this in the majority of cases is doubtless connected with extended disease of the mucous membrane of the nose or throat, with scrofula, an injudicious course of life, and unfavorable external circumstances. In relapses of chronic catarrhal inflammation, are we to consider insufficient local treatment the invariable, or at least immediate cause? May not new inflammation and new stricture arise in a lachrymal sac that has undergone general dilatation? I regard probes (and bougies) as a single and not the only remedy in chronic catarrhal affections of the mucous lining of the lachrymal sac. I have made but slight trial of the injection of medicinal agents, such as moderately strong solutions of sulphate of zinc or nitrate of silver; intend, however, in future to apply them more frequently with the probe-syringe recommended by Wecker (*Maladies des Yeux*, Paris, 1868, T. i., p. 890). I expect but little from them.

From the preceding the reader will readily conclude that I have been unable to give in my adhesion to *incising the strictured portion*, and subsequently dilating. The instrument designed to accomplish this can hardly be introduced and manipulated without simultaneously injuring parts which it was not intended to touch. In reply to authors who claim to have thus succeeded, I can only state that I have every reason to be satisfied with the treatment proposed by Bowman—with the exclusion of the larger probes. The results, however, which have induced Warlemont (*Ann. d' Ocul.*, T. lx.) to eulogize the method of Stilling* (Cassel, 1868) should lead to its farther trial.

In *fistulæ of the lachrymal sac*, I never introduce the probe through them, but through the slit-up canaliculus. It is well known that fistulæ which have been used a long time for the introduction of probes, pieces of catgut, &c., are the more difficult to close. The earlier such an opening is closed, the pleasanter and the better it is for the patient.

My recent experience enables me to again recommend in the most emphatic manner, in cases of *inflammation of the lachrymal sac*, a closely fitting pressure bandage, either alone or after slitting up the canaliculus, should that still be possible. It is true success is not constant, that is where the inflammation is advanced, but in such cases it does no harm, and saves the other patients much pain and the inconvenience of the spontaneous or artificial opening of the anterior wall. During the past year I have exhibited three cases of brilliant success among out-patients at the clinique, and had, too, only one failure.

In closing these remarks, I will take occasion to once more allude to the advantages which the plan of Bowman, employed as I have indicated, possesses over other methods. With proper patience and perseverance it surely attains its ends, provided the carrying off of the tears is impeded by no other obstacle, such as swelling of the mucous membrane of the lachrymal sac, with or without stricture; and we shall hardly ever harm the patient by inducing obliteration of the canaliculus or of the nasal duct. We promise him that he will have but little pain, and keep our word. But we need to secure ourselves from unexpected movements of the head, and make the patient sit with his head supported from behind. And, with hardly an exception, patients consent to this plan of treatment, as soon as circumstances admit of their visiting the surgeon daily for a few weeks. Hardly enough stress can be laid on this, when we consider that it is in our power to conduct a rational and safe course of treatment, at a time when the cicatrization of the mucous membrane has but slightly advanced. Even when a fistula has already formed, we can predict its clo-

[* Stilling incises the strictured portion by passing a knife of suitable form through it, and on withdrawal cuts in three or four directions, so as to make the division more complete. No after-treatment is used. He says:—"As soon as the bleeding ceases, the eye, which a few minutes before swam in tears, becomes bright and clear; to the great joy and astonishment of the patients, who often at once state their vision to be considerably improved."—H. D.]

sure, and with it the removal of the facial deformity, in the simplest manner and in a short time. But the greatest advantage lies in the fact that, in case of a relapse, which may occur after every method, not excepting the obliteration of the lachrymal sac (a thing not always quickly accomplished), we have the way open for the introduction of the probe, and that patients living at a distance can be taught, or have their friends taught, how to introduce the probe, thus enabling us to prosecute the cure at our convenience.

MEDICINAL PLANTS INDIGENOUS AT PARA, USEFUL IN DYSENTERY AND DIARRHŒA.

By J. F. da Silva Lima, M.D.*

I was quite flattered recently by receiving from an eminent physician of Pará, Dr. Francisco da Silva Castro, a valuable donation of three remedial agents of that Province, which have proved efficacious, in the practice of that learned colleague and diligent observer, against the bloody-flux that prevailed in the city of Belem (Pará) the past year.

Learning that an epidemic dysentery prevailed in Bahia, Dr. Silva Castro with laudable generosity hastened to furnish us with these remedies, in order to give to our many sick the advantages derived from his own experience, and to afford us an opportunity of submitting to clinical tests the virtues of these agents in the treatment of this formidable disease. The occasion, however, had passed, by the subsidence of the epidemic, when Dr. Silva Castro's offering came to hand. I hope, nevertheless, to avail myself of it in sporadic cases of this disease, not infrequent amongst us, and in due time to publish the results of the trial, should they appear likely to become useful to the profession.

But as no opportunity has yet arisen, I deem it not improper to state what these agents are, with the information received from our distinguished colleague of their effects, and his modes of administration.

I. *Marupá* or *Marupá-miri.*—On this plant Dr. Silva Castro has favored me with the following extract from his unpublished work:

"*Common name*—Marupá or marupá-miri (Pará, Amazons).

"*Scientific name*—Simaruba amara Paraensis—belongs to the family of Rutaceæ. A small shrub.

"*Part employed*—Bark of the root.

"*Action*, or *virtues*—Tonic; and, in larger doses, emetic.

"*Dose* and *formula*—Internally; one or two drachms in decoction with a pound or more of water.

"*Remarks.*—Very useful in diarrhœa and dysentery; and to be recommended."

According to our colleague, the marupá is not only efficacious but quite infallible in the treatment of diarrhœa and dysentery; and was the therapeutic agent relied on when these diseases raged in Pará in the beginning of the year 1868, as may be seen by the following extract from his Report as Inspector of Public Health to the President of the Province. "It should be stated that the remedy most constantly used to combat this disease (dysentery), and which gave the best results, was the bark of the root of the marupá-miri (simaruba amara), one drachm to a pound of decoction, of which an ounce every two hours was given until the disease yielded—a result generally obtained in four or five days from the first administration. A diet of warm simples from chicken, fresh meat, or rice alone, materially aided recovery.

II. *Pajurá.*—Concerning this Dr. Silva Castro writes:—The Pajurá is the nut or seed of that name. It is derived from a large tree, which grows in low or wet lands on the borders of rivers, lakes, &c.; but I have never seen it, and therefore do not know to what family it belongs. The fruit is large and has a delicious flavor. The nut is given in powder, in scruple doses, three or four times a day in any vehicle, and is decidedly efficacious. The Indians and the people of the interior use it with great benefit. I tried it in two refractory cases, and obtained good results."

III. *Pereiorá*, or *precious bark.*—In relation to this plant Dr. Silva Castro sent me a copy of the following passages from Martius (*Systema Materiæ Medicæ Vegetabilis Braziliensis*);—"*Laurineæ. Pereiorá,*" or *precious bark*, Rio-Negro (Mespilodaphne pretiosa). The bark of this equally great forest tree, celebrated by the name of canelilla among the inhabitants of Orinoco, aromatic in flavor, warming and sweetish, corresponds to true canella. Its odor is that of sassafras, a mixture of canella and roses. It contains, principally in the inner bark, a yellowish ethereal oil, heavier than water, and comparable to the oil of canella. Medicinal value is accorded to it principally with the bark of sassafras; and its use has been skilfully adjusted in decoctions, infusions, and baths, for many diseases, as, for

* Gazeta Medica da Bahia, Jan. 15, 1869.

instance, nervous debility, œdema of the feet, chronic catarrh, dropsy, gout, &c.

Although Dr. Silva Castro has not full confidence in all the vaunted virtues of pereiorá, he nevertheless affirms that a tea-like infusion of the scraped bark, in the proportion of one ounce to a pound of water, is useful in diarrhœa and dysentery; and that the Indians of Rio-Negro give preference to the fruit, dried and given in powder. Our colleague made some trials of the infusion with beneficial results.

Having shown to my friend, Dr. Bomfim, Professor of Botany in our Medical Faculty, the three specimens sent from Pará by Dr. Silva Castro, and his letter, the Professor had the goodness to send me the following note which, for the elucidation of this point in our National Materia Medica, I now transcribe:

"*Marupá-miri.*—This is the *Simaruba Paraensis*, mentioned in eighth edition of the Formulary of Dr. Chernoviz, and in the Materia Medica of Dr. Beirao, as possessing the same medicinal properties as *Simaruba Officinalis*.

"Both plants belong to the family of *Simarubaceæ*, established in 1808 by Richard Pae, reduced by Adr. de Jussieu in 1825 to a simple species of *Rutaceæ*, and lately elevated to the rank of a botanic family by Lindley and the principal botanists of the day.

"The *Simaruba Officinalis* was introduced into Europe in 1813, having been accounted by the inhabitants of Cayenne and Guyana as a *specific* in dysenteric affections. Its valuable powers, against such diseases, were confirmed by the celebrated botanist Antonio de Jussieu during the epidemic which prevailed in Paris in 1809. Since that time it has been proclaimed, and received, as an anti-dysenteric of the first class.

"To its more active tonic properties are due these remarkable results, as well as those obtained in cases of debility of the system. It is fit, however, to state that its use ought to be advised in dysentery, only after satisfying certain general rules—after, for instance, subduing the gravel when it exists; else the perils of the disease may be augmented by exciting intense local inflammations.

"'Useful in advanced stages of dysentery and diarrhœa,' say Drs. Royle and Headland in their Materia Medica, fourth edition, 1865, page 356.

"As to the therapeutic uses of *Pereiorá*, the specimen sent by Dr. Silva Castro, and the clause in his letter commencing 'the tea-like infusion of the bark,' &c., appear to me to give a sufficient idea of the plant and its properties against dysentery. An examination of the leaves proves it to belong to the variety *longifolia* or *angustifolia*.

"The fruit of the *Pajurá* shows it to be of the family of *Lauraceæ* or *Laurineæ*. It is dry, but drupelike, and within the nucleus is enclosed an embryon destitute of endosperm, similar to the embryon of the *Persea gratissima* (abacàte). This embryon, reduced to powder, is that experimented on by Dr. Silva Castro, as well as that referred to in his letter.

"The *Pajurá* and the *Pereiorá* owe their good effects in dysentery and diarrhœa to an aromatic principle, that is, to an essential oil which generally exists in plants of this family."

I give publicity to the preceding statements concerning these three important remedies indigenous on the shores of the Amazons, not only in consideration of the eminent colleague who honored me with this valuable consignment, and to whom science already owes numerous interesting contributions to our National Materia Medica, but equally to enable other practitioners, hitherto unacquainted with these agents, to make a trial of them in dysentery and diarrhœa, and thus, by adding the results of their experience to those obtained by Dr. Silva Castro, to establish definitely the therapeutic value of these remedies in such diseases, and thence to spread abroad their adoption from a limited locality where their usefulness has rendered them a necessity.

B. E. C.

Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON. SECRETARY, HOWARD F. DAMON, M.D.

DECEMBER 5th, 1868.—The society met at the house of the President, Dr. Putnam, at 8, P.M.; the President in the chair.

CASE I.—*Puerperal Convulsions.*—Dr. Abbot reported the case.

The patient was a young, healthy, robust lady, pregnant for the second time, having aborted at an early period in her first pregnancy. She had been remarkably well during her second pregnancy, with the exception of being badly poisoned with ivy, two or three weeks previous to confinement. She awoke early in the morning and complained of intense headache, labor not having commenced, and had several convul-

sions. Labor came on during the forenoon and lasted three or four hours. The patient was seen by Dr. Abbot in consultation two or three hours after confinement, which was premature, at the seventh month. She had three or four convulsions during his stay of three hours, but was conscious enough in the interval to recognize her husband. The patient was bled to the extent of a pint with marked relief, as she was observed previous to a convulsion to put her hand to her head as if in pain. Subsequently, slept for a time, but the convulsions returned and were kept in check by the constant administration of ether through the night. No urine could be obtained for examination. The patient made a good recovery.

Case II.—*Puerperal Convulsions—Albuminuria.* Dr. Abbot reported the case. Parturition took place in this case, Nov. 30th, between 12 and 1 in the morning. The patient had been unusually excited, tossing about the bed with great violence during the labor; and ether was given freely. There were no convulsions before the birth of the child, and the ether did not check the expulsive action of the uterus. The next morning there was intense headache, and a convulsion at 10, A.M. The pain was in the left temple. Thirty grains of the bromide of potassium were given; and the patient came quickly under its influence, and slept six hours. She was said to have had œdema of the ankles, which commenced in July; the urine was found to contain a large quantity of albumen—about a third of the bulk of the liquid. Specific gravity 1016; it contained urates, and a considerable amount of triple phosphates, pus, and casts. The convulsion was not repeated. Milk has been secreted freely; and the œdema has disappeared. Dr. Abbot believed that if ether had not been administered, convulsions would have occurred during labor. The preceding table of examinations of the urine, made by Mr. E. N. Whittier, Medical House-pupil at the Massachusetts General Hospital, is interesting, as showing how rapidly the albuminuria may disappear in such cases.

TABLE.

	Time.	Reaction.	Sp. Gr.	Albumen.	Pus.	Casts.
Dec. 6th.	Unknown.	Acid.	1011	Large Quantity.	Present.	None.
" 7th.	Evening.	"	1019	Diminishing.	"	A few hyaline.
" 8th.	A.M.	"	1016	"	"	None.
" 9th.	"	"	1021	"	"	"
" 10th.	"	"	1016	"	"	"
" 12th.	"	"	1011	Scanty.	"	None. Some blood,
" 14th.	"	"	1016	Nearly as much as at out set.	Increased.	None.
" 17th.	"	"	1026	Very much less than at any time previous.	Very little.	Very heavy deposit of amorphous urates.
" 18th.	"	"	1017	No albumen.	None.	No casts. No blood.

Albumen steadily decreased from 6th to 14th, then suddenly increased.
Pus " " 6th to 14th, " "

Dr. Reynolds asked if such a patient is not liable to have more grave renal symptoms in subsequent labors.

Dr. Putman remarked that puerperal convulsions did not always depend on albuminuria; but were sometimes of an hysterical, epileptic, or apoplectic character.

Case III.—*Albuminuria, Puerperal Mania, &c.*

Dr. Reynolds thinks it desirable to learn the character of the urine whenever a pregnant woman appears debilitated or anæmic, or when her nervous system is in an unusually excitable condition—especially if the patient gets but little sleep. He has repeatedly used in the case of such women, with most satisfactory results, the preparatory treatment upon which Mr. Clay of Manchester and Dr. Horatio Storer of this city have so much insisted before surgical operations within the abdominal cavity, the administration of full doses of muriate of iron for a month or more in advance, to which Dr. Reynolds commonly adds every evening, five grains of the extract of ox-gall, both as a mild laxative and a nervous calmant.

Dr. Lyman thought the ox-gall a most effective and admirable remedy, in from five to ten grain doses. He said it produces very soluble discharges, not unlike those obtained from the administration of sulphur.

Dr. Buckingham stated that he also used the ox-gall some years ago. He had seen many patients with convulsions. They were generally during their first labors, and many times they were hysterical convulsions.

Case IV.—*Albuminuria during Pregnancy, Convulsion during Labor.* Dr. Buckingham

gave the following history of a patient whom he had attended several times in labor. At her previous labors, there was severe hæmorrhage after the birth of the child. On the present occasion she had passed over her expected time. Her feet and legs were œdematous, and her face was swollen; but she was in no pain, although she had hard work to get about. It was feared that she might have convulsions.

Large quantities of albumen and granular casts were found in her urine, two weeks previous to her labor. Her urine was very scanty, not more than an ounce being passed during twenty-four hours, on several days. The bowels were thoroughly cleared out, and gallic acid prescribed. She had intense headache subsequently, and supposed from the gallic acid. Dr. B. was called to the patient between one and two o'clock in the afternoon, and remained until after delivery. She then had pain in the abdomen, but the os uteri was rigid. At 5, P.M., she asked for ether, on account of headache. After it was given, she had pain in the loins, but fell asleep for five or ten minutes, when suddenly she started up and cried "Doctor!" and went into a state of perfect opisthotonos. There was severe convulsion. Since the labor one of her eyes is so affected that she could see but half an object. The magneto-electric battery was used, on this occasion, to cause uterine contractions; one pole being placed on the fundus, and the other over the umbilicus.

Case V.—*Albuminuria; Convulsions after Delivery; Death.*—Dr. Cotting gave the history of a woman who had been the mother of a number of children, but was now again confined after eight years' interval; and whom he had seen in consultation. She was reported to him to have been confined at 2, A.M., after a perfectly natural labor. Her physician left her at 4, A.M.; suddenly and without premonition of any kind, she was seized with convulsions at 5, A.M. On examining the urine, it was found to contain large quantities of albumen and also casts. The convulsions continued almost without interruption, even when the patient was fully etherized. Ether had little or no effect upon their severity. She died early the next morning.

The subject of the administration of ether in labor was then discussed.

Dr. Abbot said he was opposed to the early use of ether, as it seemed to him in that stage to retard labor, as it sometimes did, in fact, in the advanced stages. He seldom gave it unless the patient asked for it, and then not usually before the second stage, and in moderate quantity.

Dr. Parks asked the President if he was in favor of giving ether in natural labor.

Dr. Putnam said the objection most commonly made is that the labor is retarded. This is true—sometimes most remarkably—but on the other hand the labor is often indirectly facilitated and accelerated by its influence in quieting nervous irritation and promoting the secretions and dilatation of the soft parts.

A more serious objection, if well founded, is the alleged liability to be followed by hæmorrhage. In his experience this had not been confirmed.

In reply to a question Dr. Putnam stated that he had sometimes employed ether in the very first stages of labor advantageously and agreeably.

Dr. Reynolds is of the opinion that in not a few instances the removal of the acute suffering enables the patient to give increased aids by her own exertions, while there are now and then women of fine muscular development, with whom the moderate use of anæsthetics relieves the distress without lessening the expulsive efforts.

Dr. Buckingham thought that, in hysterical cases, ether interfered with the progress of labor. Dr. Lyman gave a very graphic account of a case, in which two quarts of ether were given to a hysterical young woman during labor, without quieting her turbulence.

Dr. Cotting reported a recent case in which turbulence increased, but labor ceased during three hours of administering the ether. Discontinuing the ether, labor went on; and the patient declared that the labor itself was more tolerable than the effects of the ether. This was not a solitary case of the kind in his experience. Ether was followed by other inconveniences besides hæmorrhage; retention of the urine was one. Still, he not unfrequently allowed ether in labor, though the advantages were less than originally anticipated.

Dr. Reynolds said that in certain cases of undilated *os* he believed the full administration of ether for a short time a most excellent plan. When not given expressly for this end, he prefers to use very moderate doses. There is a class of hysterical patients whom it is very difficult to tranquillize with ether.

Dr. Read thought that there were two classes of women who are met with in labor. One selfish, unwilling to suffer the pangs of child-birth, and with no thoughts of their

expected offspring, seeking only to be made unconscious of suffering at any risk. The other true mothers, who, while probably as ready to be relieved of pain, and desirous of obtaining as much relief as possible, still desire that relief in the safest and best way for both themselves and the child yet unborn. The first claim ether from the outset and clamor for it, the latter accept it as a boon, when it is the most proper time for its administration. He thought that when ether was administered from the outset, it had the effect to weaken the expulsive power of the pains, so that at last they do not force the child down at all, and resort must be had to instruments in cases when otherwise the labor must have been natural. He thought it was best to delay the administration of ether till so late a period in the labor that this effect could not happen. As, for instance, till the time when the head rests on the perinæum.

Dr. Minot thought that most women wanted ether; he always gave it when asked so to do. He did not think it retarded labor.

Dr. Putnam then asked the opinion of the society in regard to the production of uterine hæmorrhage, in consequence of the use of ether.

Dr. Minot did not think hæmorrhage more frequent with ether. He said that the only patient lost by him, from uterine hæmorrhage, took no ether.

Dr. Lyman said that his faith had been shaken, during the past year, in regard to the use of ether in labor. He never lets his patients lose consciousness, and delays its use as long as the patient can be pacified without it. Dr. Abbot said that he had not seen any alarming hæmorrhage after the use of ether; but, nevertheless, he usually gave, where he had administered it, a dose of fluid extract of ergot, after the labor was completed.

Dr. Putnam then asked Dr. Sinclair to state his experience in regard to the production of uterine hæmorrhage, in cases where he had given ether.

Dr. Sinclair said that he always dreads the giving of ether, on account of the greater liability, in his experience, to hæmorrhage after its use.

Dr. Buckingham said that, on this point, he agreed perfectly with Dr. Sinclair; and had often been obliged to wait two or three hours with his patient for pains to return, which had been stopped by ether.

Dr. Parks asked Dr. Buckingham if he still retained his views in regard to the use of opium in labor.

Dr. Buckingham said that he did, and spoke of its use as advised by Dr. Murphy in the treatment of hæmorrhage. He gave a full dose at the outset, if he wished to stimulate. The dose, which would stop pain under ordinary circumstances, was only a stimulant in hæmorrhage, and if the prostration was great the dose must be large.

Dr. Ayer then spoke of the use of ergot. He uses Thayer's fluid extract; and thinks it is better, and more reliable, than the powder.

Dr. Abbot remarked that it is the general impression that it is important to have the powder freshly prepared. He had been informed, however, that most of the powdered ergot sold is ground in large quantities, and supplied to apothecaries who keep it on hand for an indefinite length of time, as its extemporaneous preparation is extremely difficult.

Dr. Cotting thought that the active properties of the ergot reside in the outer portions, or covering, of the fungous growth.

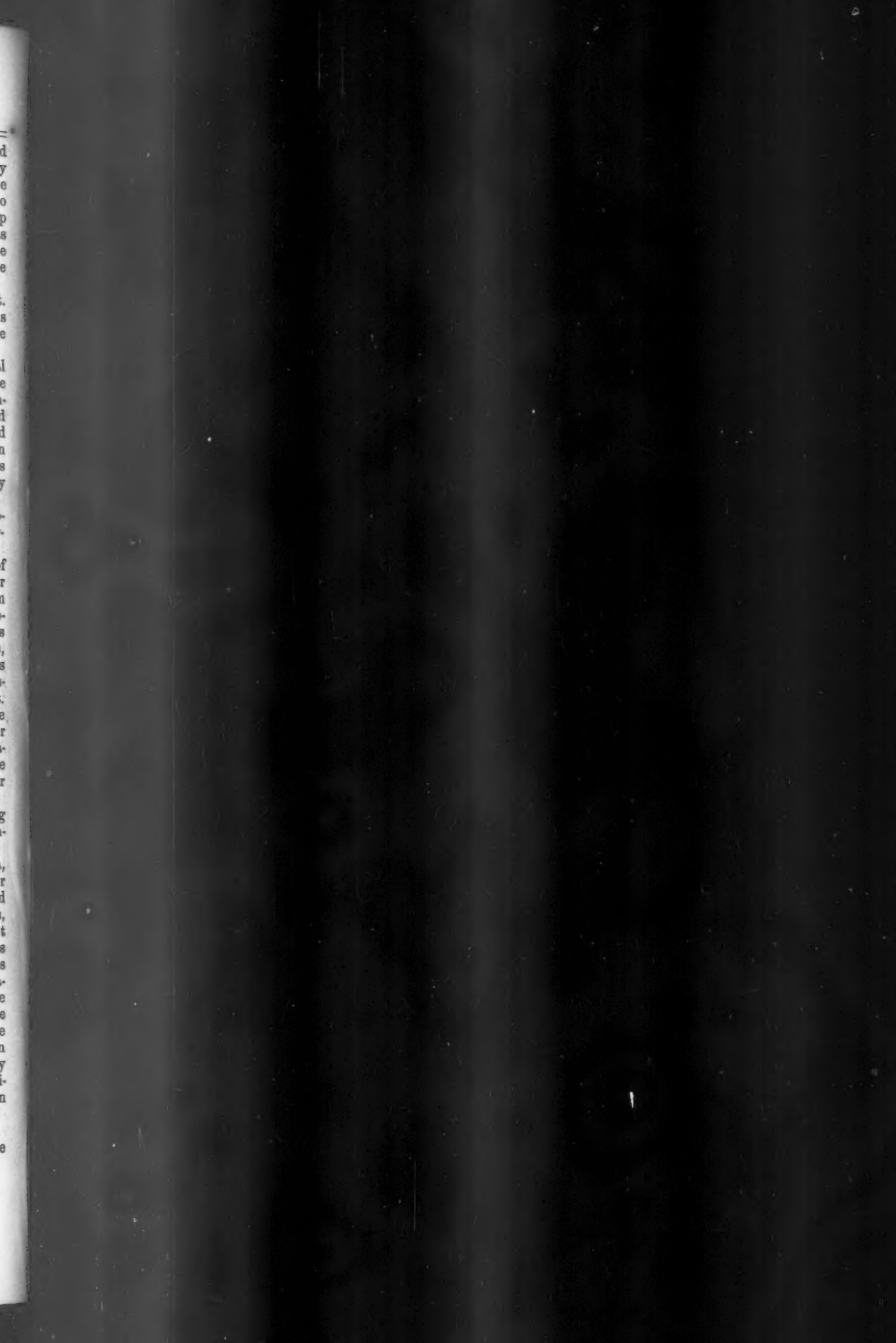
Dr. Ayer then reverted to the use of ether. He said that he seldom gives ether in the first stages of labor; but uses an enema of three grains of tartarized antimony. He had seen more secretion of mucus from the vagina, in consequence of this, than from the use of ether. It also hastens the first stage more than ether. He is satisfied that it produces a great deal of benefit. He uses the valerianate of morphia; since it is less exciting than some of the other forms in which opiates are given during labor. He always fears hæmorrhage where he uses ether in labor; and remains longer with his patient, where it has been given.

Dr. Sinclair then reported the following case, to which he had been called in consultation.

Case VI.—Mrs. ——, aged 21, primipara, strong and healthy in appearance; in labor over twenty-four hours, during which period she had three or four severe convulsions, for which ether was given. Dr. S. did not witness a convulsive paroxysm. The pains continued moderately efficient and the os uteri sufficiently dilated. Although the labor might have terminated safely, as to the mother, without artificial interference, he advised delivery by the forceps, for the reason that the fœtal heart pulse had fallen to 105 in the minute. Instrumental delivery was easily effected, but considerable difficulty was experienced in the resuscitation of the infant. Mother and child did well.

Adjourned at 10, P.M.

Subsequent to the regular business of the



meeting, Dr. Sinclair exhibited Dr. Charles's cephalotribe and the *Retroceps* or *asymmetrical forceps* of Dr. Hamon, de Fresnay (sur Sarthe), which Dr. Sinclair believed to be, perhaps, the most handy and effective cephalotribe hitherto made.

Dr. Thierry-Miegs, a distinguished obstetrician of Paris, first directed the attention of Dr. Sinclair to the retroceps. Dr. S. has translated the following description of the instrument from an article by that gentleman in the *Journal des Connaissances Médicales Pratiques et de Pharmacologie, du 10 Mars*, 1868.

"The retroceps is an asymmetrical forceps; one of the blades is introduced on the left side, almost like the original forceps, and the other on the right, but the two branches, united, embrace generally over a quarter or a third of the posterior circumference of the head.

"From this arrangement, it results that the two blades of the retroceps are much more easily applied than those of the common forceps; and the branches are articulated without any difficulty, thanks to the ingenious mechanism with which the handle of the instrument is provided.

"The blades once placed and articulated, extremely moderate tractions are sufficient to cause the head of the fœtus to advance; and for this purpose, only one hand is needed, or even two or three fingers of the hand, when the head is retained on the floor of the perinæum, the most frequent indication for the application of the forceps.

"The secret of the remarkable facility with which the fœtal head is made to advance by means of the retroceps, is explained, in my opinion, by the combination of the two following conditions:

"The first consists in this, that the pressure of the instrument, during traction, is exerted upon the part of the head situated in the posterior portion of the pelvis; this pressure tends, consequently, to cause the head to rotate under the symphysis pubis. Indeed, it is this rotation which constitutes by itself alone nearly the whole movement of the head after it has descended into the hollow of the sacrum.

"The second favorable condition is the possibility which the head preserves of turning a little in the blades, without ceasing to be firmly seized—a condition which allows it constantly to adapt its diameters most conveniently to those of the axis of the strait it is obliged to traverse.

"These two conditions are not so well answered by the symmetrical forceps. It is necessary that the branches of the latter should grasp the head very strongly, and make with it a very solid union, so as not to slip upon it rather than cause it to advance.

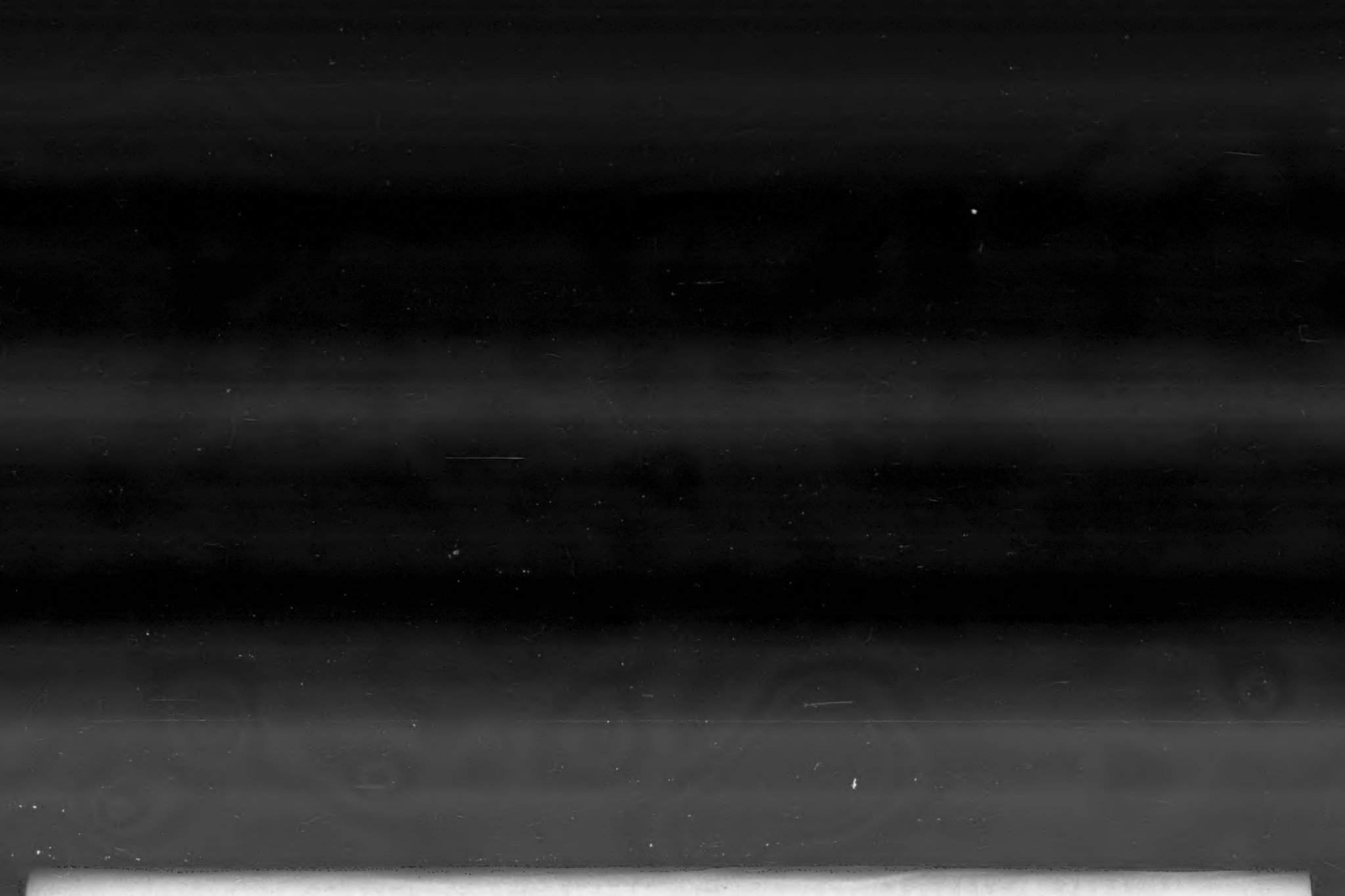
"And on account, moreover, of this immobility of the head grasped in the instrument, it is necessary for the accoucheur to make tractions with the greatest care, in the curvilinear direction of the axis, so as not to draw uselessly, notwithstanding all the force he is able to exert.

"Supposing that he should succeed in following the direction of the axis perfectly, he will not, for all that, know how to impress on the head of the fœtus all the little movements in a lateral direction, of flexion and of deflexion, which alone permit it to accommodate successively its diameters in the best manner possible to the more or less oblique and narrow diameters of the canal that it is forced to traverse.

"Hence the resistance that the ordinary forceps is obliged to overcome by force, and that the new instrument spares to the accoucheur.

"Another advantage of the retroceps, and a valuable one, is that it may be introduced, articulated and the necessary tractions made, without changing the position of the patient in the bed. How often is the physician embarrassed, considering himself justified, according to the rules of practice, in applying the forceps, but hesitating, to avoid if possible, for the sake of the poor woman and the interested attendants, the formidable preparations which this application demands. It becomes necessary, in fact, to place the patient across the bed, to have some one hold the head and shoulders, two assistants who will evince sufficient courage to withstand the sight of blood and the operation, each one to hold the flexed legs of the patient; recollecting the fearful length of the classic forceps, the difficulties which one sometimes encounters in articulating them, the force which may be necessary to exert in the tractions; are these not sufficient circumstances to cause the physician to hesitate before revealing to the family the necessity for the application of the instrument?

"With the retroceps, matters are much more simple; the head, let us suppose, is retained on the floor of the perinæum, the resistances are too great or the expulsive force is insufficient, the accoucheur waits the wished-for time, an hour, an hour and a half, &c. He arrives at the conviction that the application of the forceps is necessary. Silently he makes ready. No assistant, no change in the position of the



woman are necessary. The introduction of the blades, for which it is not indispensable to know the exact position of the fœtal head, is made with great ease, the articulation equally so. To do this, it is not necessary to remove the bedclothes. Then slight tractions with one hand or one or two fingers of the hand, as already said, suffice to make the head advance, and if before the head is born the operator wishes to disarticulate the blades, he can do so without the least trouble, for it is necessary only to raise a little hinge adapted to the handle of the instrument.

"The retroceps can, moreover, be applied equally well in women confined on their left side *à l'anglaise*. Furthermore, backward and forward tractions, while the head is yet high up, are at the same time favored by that position.

"Finally, it may be added, that the retroceps is an instrument light and small, scarcely weighing 500 grammes, hinged so that it may be doubled up, placed in a little leather bag and easily put in the pocket. This is an advantage not to be lightly regarded by the practitioner."

Bibliographical Notices.

Recovery from the Passage of an Iron Bar through the Head. By JOHN M. HARLOW, M.D., of Woburn. With a plate.* Read before the Massachusetts Medical Society, June 3, 1868. Boston: David Clapp & Son, 334 Washington Street.

THIS paper, which is included among the Publications of the Massachusetts Medical Society, has been re-published in pamphlet form, and is for sale at this office.†

For a couple of years during the last decade, the attention of visitors to the Museum of the Medical College, in Boston, was attracted to an iron bar about three and a half (3½) feet long, and about as large round as a crow-bar. This object had an inscription carved upon it, from which inscription, and from the verbal statements which were given to satisfy the curiosity aroused, it was learned that the bar had been driven through the head of a man, by the accidental explosion of a charge of blasting powder, and, that this man, so far from being instantly killed by the injury, had recovered from its effects, and was actually walking on this planet, attending to the ordinary affairs of life. Such was the outline of a case which has become of classic celebrity.

The physician who attended the patient whose cerebral organism had been comparatively so little disturbed by its abrupt and intrusive visitor, was Dr. J. M. Harlow, the writer of the pamphlet we are noticing, and who reported the case in the Boston Medical and Surgical Journal, Vol. 39, No. 20. In a foot note to the present pamphlet Dr. Harlow says:

"Soon after the publication of this case in the Boston Medical and Surgical Journal, in November, 1848, I received a letter from Dr. Henry J. Bigelow, Professor of Surgery in the Medical Department of Harvard University, requesting me to send Gage to Boston, generously proposing to defray his expenses and compensate him for loss of time. Gage being quite well, and the hole in the top of his head entirely closed, accepted this proposition, and remained in Boston, under the observation of Prof. Bigelow, eight or nine weeks, where he was examined by many medical men, Prof. Bigelow being thoroughly convinced, at a time when the accident had very few believers either in the medical profession or out of it, that the lesion was as represented—that the iron had traversed the brain and cranium as stated. With my concurrence he reported the case, with illustrations, in the American Journal of the Medical Sciences for July, 1850."

Dr. Bigelow having thoroughly investigated the case, and satisfied himself of its genuineness, finally succeeded in forcing its authenticity upon the credence of the profession in this city, as could hardly have been done by any one in whose sagacity and surgical knowledge his *confrères* had any less confidence. But for his persistent efforts, we may assume, with no disrepect to Dr. Harlow,* the first report of the case might have slumbered unnoticed in an old volume of this Journal, and never have secured its rightful place in the annals of surgery—never have been accepted by the medical public, as a record of important facts, to be relied upon by the physiologist and the metaphysician. It was Dr. Bigelow, also, who had the inscription made on the tamping-iron,† and who persuaded the patient to allow it to be deposited in the Museum of the Medical College. As we learn from Dr. Harlow's pamphlet, the ac-

* Reproduced as a frontispiece to the present number of this Journal.

† See advertisement.

* The accident happened, it should be remembered, more than twenty years ago, when Dr. Harlow did not reside in this State.

† An implement used in blasting. It was subsequently reclaimed by the patient.

cident occurred in Cavendish, Vermont, on the 13th of September, 1848. The subject of it was residing in California when he died, which was on the 18th of May, 1861; between twelve and thirteen years having thus intervened between the date of the injury and his decease. During a short period before his death he had several severe convulsions.

Dr. Harlow had the enterprise to obtain the cranium and the iron-bar; and having exhibited them at the last annual meeting of the Massachusetts Medical Society, has most generously presented them to the Museum of the Medical Department of Harvard University. He also gives his obliging assent to our using the blocks which furnished the delineations in his paper, as it appeared in the Publications of the Massschusetts Medical Society, and as it is now published in pamphlet form. It is thus that we have come by the woodcuts in the frontispiece of our present number. The pamphlet describes the original accident, and the wounded parts from the outset; also the course of the case, and the treatment till recovery. It further gives a sketch of the subsequent history of the patient; and concludes with a description of the external and internal *post-mortem* appearances of the cranium.—Ed.

Medical and Surgical Journal.

Boston: Thursday, March 18, 1869.

In *The American Journal of the Medical Sciences* for January the leading article is by Dr. Samuel Jackson, Professor Emeritus, &c. &c., on cases of "Double Consciousness."

The most marked of the four cases described was that of a young man who had had violent convulsions, of what precise nature we are not told. For two days after his worst attack he remained in a state of great prostration, with occasional delirium. "About the third day his attendants remarked that his mind was engaged, as it were, in the recital or narrative of imaginary scenes taking place in New York,* where he supposed himself to be in company and holding conversation with, and finally paying particular attentions to a young lady. He imagined he had a rival for her favors, and entered into a quarrel, which ended in a challenge and a duel. This was the outline of a complete novelette, with various adventures that are omitted, composed at periods of about half an hour each during three days, and it was observed that when the story was resumed it was in immediate connection with the part where it had ceased. . . . During this period his eyes were open, and to all appearances he was awake and conscious; but when he would suddenly cease, and was asked what he had been doing, he insisted that he had been fast asleep. He was utterly unconscious of anything that had occurred." He ultimately recovered.

We follow Dr. Jackson when he says that the name of double consciousness as applied to such cases as the above is a misnomer; and when he remarks that the main fact is the introduction of a new set of ideas and trains of thought, which ceased at once after different intervals. He, however, goes on to say that through consciousness we have a knowledge of our own existence, and of the world without; that consciousness reveals the operations of the intellectual faculties. Here we must discriminate a little. We subscribe to the ideas of Bishop Berkeley so far as to assume that we are cognizant of the external world by inference—intuitive, of course—derived from our perceptions, and those in turn developed by our sensations; though the inference may be "short, sharp and decisive," as in the experiment suggested by Dr. Johnson of violent contact with a stone. We define consciousness, therefore, as the faculty which gives us, or rather, perhaps, which *is*, the knowledge of our existence and of our mental operations, but which does not of itself alone reveal to us the external world. The consciousness of our mental operations is also—we take it—limited to those of the present instant. But, we have the memory of an act or state of consciousness at the instant preceding the present one; as we have the memory of an act or state of consciousness twenty years previous.

With these brief propositions as to the nature and office of consciousness before us, we glance again at the case of the young man mentioned by Dr. Jackson. He was conscious of mental operations which for the most part corresponded with the facts of his external life as observed by those around him. At periods of about half an hour each, during three days, he was conscious of certain mental operations which did not correspond with the facts of his external existence. It was manifest that those mental operations—of the diseased as well as of the comparatively healthy intervals—actually took place. His consciousness of them, therefore, we have no reason to suppose to have been perverted; though the memory failed to report the statements of consciousness from the diseased to the comparatively healthy condition, and *vice versa*. Where, then, was the lesion?

We have at the periphery, so to speak, sensation. Further within the enclosure we place

* He was in reality in a distant place.

perception. No less central, at least, are thought and memory. But, in the very citadel of the mind, we must at all events locate consciousness. The cerebral disorder, in the case before us, may have made itself felt, perhaps somewhere in the region occupied by memory, perception and sensation. The mental operations, in the abnormal intervals, seem to have been logical enough in their sequence, so far as we are informed; but would appear to have been somehow supplied, from moment to moment, with wrong premises to start from. This is as far as we can get. But, as we have said, we agree with Dr. Jackson that the term double consciousness, as applied to the phenomena in question, is a misnomer. We should conjecture that the condition of mind indicated by them was allied to somnambulism—was something like somnambulism developed out of the waking state, instead of occurring as an episode of sleep.

Curiously enough, we had just finished writing the few words above, and had laid aside the manuscript, supposing we had done with the question of so-called double consciousness, when we took up *Littell's Living Age* for February 20, 1869, which was lying with leaves uncut on our table. Glancing at the "Contents," we saw the caption "Disconnected Memories." Turning to the article indicated (which was from the *Spectator*), we found in it an account of a case somewhat analogous to the one described by Dr. Jackson, and which is spoken of by the writer (who signs himself B. K. R.) as a sort of *somnambulism*.

The case, however, we have been considering differs from the one related by B. K. R. in one respect. In the latter, the notions of place and the perceptions of surrounding objects were correct; while in the former the true perceptions of situation and external objects were in abeyance, and were replaced by imaginary ones. There is similarity between the two cases in the phenomena of disconnected memory, and of departure from the ordinary *morale*.

The particular case to which we have alluded, as among those mentioned by B. K. R., is thus described:

"The instance of what might be called 'two lives in one' occurred in a French lady of middle age, the wife of a lawyer in Normandy. In appearance she was robust, but had a heavy look about the eyes, and was of a highly nervous temperament. For about a year before the time I met with her she had been subject to what the physicians (who regarded her as a psychological curiosity) called fits of somnambulism. She would close her eyes at any hour of the day or night, and open them shortly after in a totally different state of consciousness. On one occasion, when her husband did not return from a journey at the expected hour, she became anxious, and sent a servant to the town to inquire if there were letters from him. Soon after she fell into the abnormal state which was easily brought on by excitement or anxiety. During its continuance her husband arrived at the chateau. She welcomed him joyfully, inquired about his journey, ordered refreshments for him, &c., but after he had quitted the room she soon awoke as from a dream, and eagerly inquired if the servant had returned and what tidings he had brought about her husband, entirely unconscious of having just seen and conversed with the latter—indeed, she could hardly be convinced of the fact. In each state she always went back immediately to the moment at which she had quitted that state, whichever it might be, taking up the thread of her life there and recollecting what had passed during its continuance, while the intermediate period seemed blotted out of her memory for the time.

In her dream state, if it may be so called, she would talk in the *patois* of her native village (which she carefully avoided at other times), and would sing very sweetly provincial ballads, which in her normal state she could rarely be induced to do by her friends, being excessively timid and nervous. Her senses while in the dream-state were quite alive to all the objects around her; she could even use her needle, and on one occasion she noticed a rent in the soutane of the priest and mended it very neatly—though when she awoke she would scarcely believe that it was her work, not having the slightest recollection of the circumstances. In many respects she seemed to return almost to the character of childhood, doing many incongruous things; for instance, she would want to walk out, or order the carriage in the middle of the night without due cause—was wayward and petulant if contradicted, and so little under the control of reason that it was considered unsafe to leave her with servants only. To her husband or the priest she would submit immediately.

When under the influence of this sort of somnambulism, her state appears to have somewhat resembled that which I have since heard may be induced by mesmerism. Its peculiarity consisted in the accuracy of the impressions made on her by outward objects, whilst all that happened, after vanishing like a dream, was distinctly remembered the next time she fell into this waking sleep; thus she lived two lives, each with a memory of its own, but linked together by recognition of the same persons and objects.

It should, however, be observed that these two lives were not simultaneous, but alternated with each other."

The "Spectator," in reviewing the case of B. K. R., makes the following remarks:

"It is, as we understand it, the case of a lady with what we may call a *forked* memory—*i.e.*, two distinct states of memory, each of them grafted on to a common stock dating more than a year previously, but growing separately since that time. This, we say, is the construction we put on B. K. R.'s account of the Norman lady's case; though he describes it as two quite distinct and alternating states of memory, 'but linked together by recognition of the same persons and objects.' She tells us indeed that each memory, both the 'normal' and the 'abnormal,' went back straight to the last moment when it was interrupted by the transition to the other state. But this seems to us to imply that *both* went back to the time before the frac-

ture took place. If she recognized her husband, and servants, and house, and furniture, and remembered how to sew and sing, &c., in the 'abnormal' state, as she did, she clearly had a good stock of experience at her service, gathered from the time before her disease began. She could not have known her husband without remembering her marriage, nor her songs, probably, without remembering something of the time when she learned them, &c. . . . We suspect that *both* states were really abnormal, although only one of them *seemed* to change the lady's character and to impress upon it a more childish and less self-conscious aspect—that there had been, when she was first seized, some virtual untwisting of the thread of her life, one of the untwisted fibres connecting it with the condition in which she seemed most like herself, and another with the trance-like condition described by our correspondent, in which she lost her usual self-conscious timidity, her consideration for others (excepting her husband and the priest), and became wayward and wilful."

These suggestions seem to us sound, except that we do not like the term "forked memory." That expression implies two lives of recollection running synchronously back to a common point of departure. The specific term—alternate memories—would perhaps aptly designate the two cases we have been considering; while the general denomination—disconnected memories—would classify them with some other instances of aberration of the faculty of recollection.

We have reason to believe that some of our readers are disturbed by the discussion of the day on cerebral physiology and pathology; they seem to fear that we shall be led into the vagaries of materialism. We see no ground for apprehension on this head. All so-called knowledge is more or less a matter of inference, and is liable to error, except that which comes from consciousness. Even a mathematical demonstration, as being liable to inaccuracy, is less certain than the declarations of consciousness.

Your consciousness of your personal identity and of your mental operations are pure knowledge which can never err so long as you have the *mens sana in corpore sano*. Though disease distort the mental vision, nothing can take from the sound man the knowledge that the *ego* is one and indivisible. No matter how many modes of manifestation—under the names of reason, memory, perception, and so forth—are ascribed to the mind, the *ego* in which they inhere remains the one indivisible self; and it is at least probable that what we call the mind, acts as a whole in the employment of each and all its so-called faculties. In like manner, therefore, it matters nothing if the mind use the entire brain in the performance of each and all its functions, or if one faculty is manifested and developed by the use of one portion of the cerebral nerve mass, and another faculty by the use of another portion. And, conversely, it signifies not at all, if it be proved that a lesion of a certain portion of the brain impairs or destroys one mental faculty without injuring other faculties. The statement that this or that mental power or function *resides* in this or that part of the brain, is not necessarily more than a figure of speech. In our opinion, the encephalon is only the centre of a telegraphic system, as it were, by means of which the mind communicates with the rest of the body, and with the external world. Even if Phrenology had proved its claim to be a science, and had shown that the brain was divided into special districts, for each faculty, sentiment, appetite, the statement that the latter were merely attributes of the one central being, would have been by no means invalidated, and the well-established principles we have re-stated would have remained intact. Let the scalpel, then, dissect the nervous fibres; the microscope search out their intimate structure; the chemical re-agent analyze their composition; and let such explorations tell us if they will that every act of thought involves a cell growth and a cell decomposition, with the expenditure of a certain amount of phosphorus. What then? Every inference, founded on these or other investigations, which comes in collision with the revelations of consciousness, falls to the ground. For, we repeat it, that is the only mental faculty which is the source of unerring knowledge.

CONSUMPTION IN MASSACHUSETTS.

We have obtained from Dr. George Derby advance sheets from the 26th Registration Report, which he is preparing for publication. We bespeak attention to the following extracts:

"Consumption caused the death of 4,362 persons in 1867; of which number 1,974 (45.2 per cent.) were males, and 2,388 (54.8 per cent.) were females. This number is 233 less than in 1866, and absolutely less than in any year of the past fifteen, with one exception.

The deaths by quarters of the year were as follows:—

First quarter,	1,129	or 25.88	per cent.	of the whole.
Second "	1,102	or 25.26	"	" "
Third "	1,083	or 24.83	"	" "
Fourth "	1,048	or 24.03	"	" "

Divided by seasons as follows:—

Spring,	1,179	or 27.03	per cent.	of the whole.
Summer,	1,027	or 25.54	"	" "
Autumn,	1,102	or 25.26	"	" "
Winter,	1,054	or 24.17	"	" "

Deaths from Consumption in the Counties, 1867.—*Percentages.*

[Dr. Derby's table is here omitted.]

Taking the last column as the measure of healthfulness with regard to this disease alone, the counties stand as follows: Franklin, Berkshire, Hampshire, Dukes and Nantucket, Barnstable, Norfolk, Hampden, Plymouth, Worcester, Bristol, Essex, Middlesex, Suffolk.

When the annual mortality from consumption in Massachusetts is regarded by itself, or compared with the deaths from all causes, or with the mortality from this cause in other countries, and in other parts of the United States, the impression left is liable to be an erroneous one. The figures are of a certain magnitude, and the conclusion may be hastily drawn that where a scourge prevails which causes nearly one death in every five of all ages, long life cannot be expected. We have seen that this is far from being the case, when considering our death-rate in comparison with that of other countries, in this and former reports. In point of fact the very largeness of the proportion of deaths from consumption to deaths from all causes, shows how great is our immunity from other fatal diseases. The malarial fevers which under various names are so destructive in our Southern and Western States, are almost completely unknown on our soil. Calculous diseases are exceedingly rare, affections of the liver infrequent. Our climate, although severe, does not induce that feeble condition of the body which renders it incapable of resisting the morbid influences by which all communities are surrounded. But even as regards diseases of the lungs in their various forms, we are not so afflicted as might at first appear, since, although consumption is a very common and fatal disease in Massachusetts, there are other affections of the lungs almost equally destructive of life in other countries from which we are singularly free.

Number of Persons dying annually from Diseases of the Respiratory Organs (Consumption included) to each 100,000 living, in Massachusetts and in England.

MASSACHUSETTS.

	1863	1864	1865	1866
Consumption,	372	376	368	361
Bronchitis,	16	15	14	16
Pneumonia,	137	143	118	128
Pleurisy,	10	11	7	7
Laryngitis,	1	1	1	1
Asthma,	4	4	4	3
Diseases of the lungs not otherwise described,	5	5	4	4
Totals,	545	555	516	520

ENGLAND.

Consumption,	251	258	259	265
Bronchitis,	157	189	175	197
Pneumonia,	119	119	108	120
Pleurisy,	4	5	4	4
Laryngitis,	7	8	6	6
Asthma,	18	20	19	17
Diseases of the lungs not otherwise described,	24	25	23	23
Totals,	580	624	594	632

The preceding table presents evidence on this point drawn from the Registration Reports of Massachusetts and England for the four years ending with 1866.

The points of difference which seem most important to observe are, first and chiefly, the small mortality from bronchitis in Massachusetts as compared with England; the proportions are eight to ninety-two, or nearly one to twelve. This more than compensates for our greater mortality from consumption. The proportions for this disease are 58.8 in Massachusetts and 41.2 in England. From the two diseases combined there are 46.7 deaths in Massachusetts to 53.3 in England.

The mortality from pneumonia and pleurisy is seen to be a little greater in Massachusetts; but less from laryngitis, and from asthma. It is probable that the dyspnœa resulting from enlarged bronchi in chronic bronchitis is frequently called asthma.

Of diseases of the lungs not classified or particularly described, there are more in the English reports; but the aggregate of deaths from affections of the respiratory organs (including consumption), in a given number of the people of all ages, is greater in England than in Massachusetts.

The liability to death from such cause is as 53.2 *in England to* 46.8 *in Massachusetts.*

Diminishing Mortality from Consumption in Massachusetts.—The following table will make evident a fact to which reference was made in the Registration Report of 1865, and which well illustrates the value of vital statistics, since without their aid it could not be proved:—

Mortality from Consumption in Massachusetts in each of the past fifteen Years.

YEARS.	Population.	No. of Deaths from Consumption.	Deaths from Consumption to each 100,000 living.
1853,	1,075,007	4,593	427
1854,	1,103,351	4,611	418
1855,	1,132,364	4,750	419
1856,	1,151,455	4,701	408
1857,	1,170,862	4,625	395
1858,	1,190,592	4,574	384
1859,	1,210,656	4,704	388
1860,	1,231,066	4,557	370
1861,	1,238,110	4,522	365
1862,	1,245,310	4,269	343
1863,	1,252,500	4,667	372
1864,	1,259,710	4,733	376
1865,	1,267,031	4,661	368
1866,	1,274,310	4,600	361
1867,	1,281,700	4,362	340

A comparison of the first two columns shows at a glance that the number of deaths does not increase with the population, and

in the third column, representing the mortality to a fixed number of the people, the constant improvement is plainly seen; not always from one year to the next, but perfectly evident when two or three years are taken together.

Comparing the first group of five years with the last group of five years, it is seen that the annual gain in each 100,000 of the population is 51 lives; this gives as the actual saving of life in the last five years 3,220 persons, or 644 in each year. From some cause, or combination of causes, deaths from consumption in Massachusetts have diminished by that amount, and the improvement seems to be still going on. It is of the utmost importance to discover what these causes are; but here statistics fail us, and we are left to conjecture. Our own belief is that they are to be found in *the advance of medical science*, which has given to physicians a better knowledge of the nature of the disease, derived from pathology; a better mode of treatment, derived from the careful observation of cases, and from modern discoveries in chemistry and physiology; and a greatly improved acquaintance with the means by which consumption may be avoided by those predisposed to it by inheritance, derived from all these sources combined.

This knowledge is becoming diffused among the people, so that all intelligent persons now know more about the prevention of consumption than the wisest physicians knew fifty years ago.

Fresh air by day and by night, strong and nourishing food, dry soil on which to live, sunlight, and warm clothing, are the means of saving many lives which would have been hopelessly lost in the preceding generation. If our conjectures are correct this improvement may be expected to continue, and everybody can help to make it greater. Ventilate the school-rooms, and the workshops, and the stores, and the houses; in cold weather let the air, comfortably and equally warmed, be generously supplied from without in a constantly flowing current. Let those who can provide it in their homes remember that an open fire, which sends two-thirds of the heat up the chimney, furnishes the best ventilation for a room of moderate size which the ingenuity of man has yet devised, and that the heat escaping by the flue is the price to be paid for it. Let in the sunlight, and never mind the carpets: better they should fade than the health of the family. When a man proposes to build a dwelling in a swamp, warn him of his danger.

HARVARD UNIVERSITY.—The following was the order of exercises at the Medical Commencement at the Massachusetts Medical College, Wednesday, March 10, 1869:—

Prayer, by Rev. Professor Andrew P. Peabody, D.D., LL.D. Dissertations selected for public reading:—1. *Hæmorrhage.* Frederick Lysander Burden, Scituate, R. I. 2. *Ergot of Rye.* Frank Winthrop Draper, Wayland, Mass. 3. *Digitalis Purpurea.* Francis Webster Goss, Salem, Mass. 4. *Cerebro-spinal Meningitis.* Charles Inglis Margeson, Wilmot, N. S. 5. *Hip Disease.* John Hildreth McCollom, Medford, Mass. 6. *Hypodermic Injections.* George Harlin Pillsbury, Lowell, Mass. Conferring of the Medical Degree, by Prof. Henry J. Bigelow, M.D., Dean. Conferring of the Degree of Dental Medicine, also by the Dean. Address by Prof. Edward H. Clarke, M.D. Benediction.

The dissertations were highly creditable to their authors.

The Address by Prof. Clarke was learned, far-reaching and suggestive. After saying that knowledge was increasing in a geometrical ratio, and that none but a seer or a fool would venture to cast the scientific horoscope of the next twenty years, he took the ground that the question of the present position of medicine offered itself under two aspects—1st, that of its relation to other sciences (this topic was waived as too vast for the occasion); 2d, of the relation of medicine, or rather of medical men, to the community—not as practitioners, but in more occult affinities. He then proceeded to discourse upon the attitude of our profession toward education in its broadest sense—inclusive of the school, the college, the press, and public opinion—toward law, and toward religion.

Female physic, if we may be allowed the term, was alluded to by Dr. Clarke. Throw no obstacles, he said, in the way of the experiment; but, he conjectured, it would be found that "a woman could not develop into a man, or a man into a woman."

NOTES FROM THE UNION MEDICALE.

AT the Académie des Sciences there has been a discussion on the nature of *solar light*, between MM. Faye, Chasles, Sainte-Claire Deville and Le Verrier. From the tenor of this discussion, it would appear

that the light of the sun is not attributable to the combustion of hydrogen; but that it proceeds from a mass of solid matter surrounded by hydrogon.

At the Mauritius, Dr. Jessier claims to have cured intermittent fever by phenic (carbolic) acid, in a patient with whom quinine had failed. Three fourths ($\frac{3}{4}$) of a grain of the pure acid dissolved in twenty (20) drops of water were injected beneath the skin. MM. Barrant and Jessier consider that intermittent fever is due to the presence in the blood of a microscopical ferment—vegetable or animal.

Birth of an Extraordinarily large Child.—Dr. Brotherston, of Alloa, communicated to the Edinburgh Obstetrical Society, the following record of the birth of a gigantic fœtus:—I was called upon, Wednesday morning last, about half past five, to attend on Mrs. F., Alloa, who was in labor with her seventh child. Matters went on as usual till the head was expelled, and I expected that the next pain or so would terminate the delivery; but, on the contrary, though the pains were severe, and I applied a moderate degree of traction to the head, during nearly twenty minutes, I could not deliver the body of the child; the shoulders appeared to be the obstacle, and the right arm-pit could be reached by the finger without much difficulty. I sent for Dr. Duncanson, who came immediately, and he brought my instruments with him; we then applied the blunt hook to the right axilla, and, by traction of no ordinary kind, extracted a dead male child of the following dimensions:—Weight, 17 lbs.; length, 23½ inches; circumference round the head over the occipital and frontal prominences, 15 inches; circumference around shoulders, 20 inches; circumference around chest, 15½ inches; circumference around stomach, 17 inches; from funis to sole of foot, 10½ inches; from funis to head, 13 inches; circumference of thigh, 9 inches; length of leg from trochanter to heel, 10½ inches; length of arm, 10 inches. The measurements were taken in my presence by Dr. Duncanson and Mr. F., the father of the child. Mrs. F. is making a very favorable recovery. The father is six feet high—a very proportionate man, and rather good-looking, aged 44; weight 13 stone. The mother is 5 feet—rather stout, aged 40—was never weighed, but looks about 11½ stone. The child was perfectly formed in every way—no signs of hydrocephalus whatever. This will be seen by the measurement of the head, which was 15 inches and well formed. The child was living when the head was expelled from the pelvis and vulva, as it gave a convulsive effort, as if trying to pull back the head occasionally. This lasted about ten minutes. When these efforts went off, I believe the child died. I suppose the cause of death was pressure of the cord, the body of the child being of such a size as to effect this most readily. When the child was extracted, it was quite dead; its right humerus gave way near the neck, from the pressure of the blunt hook. There was no hæmorrhage afterwards worth mentioning—just what is usual. Dr. Keiler thought this was about the heaviest child he had ever heard of. He had shown a fœtus some time ago, which had been delivered by craniotomy, and whose shoulders were so large that great difficulty had been caused in extraction. Even now, although preserved in spirit for such a length of time, this child still looked a giant, but he did not think it would weigh more than 14 lbs. He had heard of an American baby which weighed 19½ lbs. at birth. Dr. Pattison said there was a child in Dr. Thatcher's museum which weighed 16 lbs.—*Dublin Medical Press and Circular.*

In a case of labor we attended March 3d, 1869, we had a similar difficulty with the shoulders of the fœtus (weight 10¼ pounds). We had used much force in delivering the head with the forceps; but with all the traction we dared to apply with both hands grasping it, we could not start the shoulders until we had engaged the index finger of the right hand in the left axilla of the fœtus. Then seizing the chin with the remaining fingers of the same hand, while the left hand was applied to the back part of the vertex, we with some difficulty extracted. The child was partially asphyxiated, but was resuscitated.

Vertical Dislocation of the Patella.—George M. Sternberg, M.D., Ass't Surg. and Brevet Major, U.S.A., in a letter to the Philadelphia *Medical and Surgical Reporter*, dated Camp Supply, Ind. Ter., Jan. 18th, 1869, says:—

"In the *Reporter* for December 19th is an account of a case of vertical dislocation of the patella, by Dr. Samuel Rittenhouse. I had a similar case about three months since. A colored cavalry soldier while riding his horse came in violent collision with another

mounted man. He dismounted, and finding that he was unable to walk, was carried by some comrades to his tent, and I was sent for. Upon examination I found his left leg extended and all motion of the knee-joint prevented by the patella, which was tilted upon its outer edge, the anterior surface looking outward. The patient was suffering severe pain in the joint.

"I immediately brought him under the influence of chloroform, and flexing the thigh upon the pelvis I grasped the patella in my right hand, and the ankle with my left. Then at the same moment I flexed the leg upon the thigh with my left hand and tilted the patella over to its place with the right.

"The reduction was accomplished very easily, the bone coming to its place with a loud snap. An hour after, the man was walking around without pain or inconvenience, and continued to perform all his military duties as usual."

The Siamese Twins.—A surgeon who would not hesitate to attempt the separation of two weakly and delicate children would hesitate to interfere with two aged men. In the case of Chang and Eng there is evidently a hollow proceeding for some distance along the band of union, and connected with either peritoneum. The question is whether the one cavity is continuous with the other, and, if so, what are their contents? We have given above good reasons for dreading the presence of a portion of either liver. This organ is so very plastic that it might easily enough be united in the two and yet give rise to no discomfort in the uniting band. That the one does not feel what is done to the other, is of no consequence; that the union is close between the two is clearly shown by their liability to simultaneous attack by constitutional maladies, as ague and measles. In the case of the former disease the periodicity was identical in both.

The prospect which now faces these unfortunates is no doubt a hideous one, but the immediate dissolution of both is more appalling, and we are thoroughly convinced that our Surgeons have acted wisely. Sound advice, and an almost womanish regard for human life, are the grand characteristics of English Surgery, and we are prouder of men who can dispassionately and skilfully consider the chances for and against the success of an operation, and finally decline to perform it, than we should be of one who, with a reckless disregard for consequences, would adopt a course which might end unfortunately both for the patient and himself.—*Lond. Med. T. & Gaz.*

Death from Carbolic Acid.—We lately noticed the report of a death from the injection of carbolic acid into the bowel which occurred in the Worcester Infirmary. It seems, from a correspondence which has lately been published in the *Times*, that the mistake arose from the use of the word "injection." The Surgeon, Mr. Budd, directed the use of a solution of carbolic acid, which was to be injected, a tea-spoonful at a time, with a glass syringe in the case of a patient suffering from urinary fistula. The dispenser mislaid the direction, and sent the solution to another patient, who was also in the Hospital with urinary fistula, to whom the nurse administered it as an enema. The man died within a few minutes. Mr. Budd promises the publication of an accurate account of all the circumstances of the case after it has been investigated at a special meeting of the governors of the Hospital.—*Ibid.*

Treatment of Epilepsy.—Dr. H. Beigel, speaking of epilepsy, says:—

Concerning treatment, we are all aware that amongst the large number of remedies, such only have any visible effect as belong to the class of nervines. According to my experience, which extends over several hundred cases, there are only two remedies which render good, and even very good service, in the treatment of epilepsy—namely, large doses of bromide of potassium and morphia if used hypodermically. I have tried nearly all drugs recommended by the authors on epilepsy, but failed to see any result worthy of notice. But bromide of potassium has doubtless the power of delaying the attacks, so that a patient who has previously had perhaps several fits in one week, has one every few months—a delay which remains stationary in many cases, even after the remedy has been left off, provided it has been taken for a sufficiently long period. The same result is obtained by hypodermic injection of morphia, which acts much more rapidly and intensely. I use the bromide of potassium in children and in such adults as are ill-nourished, and employ hypodermic injections if no other complication exists with true idiopathic epilepsy.—*Ibid.*

At a meeting of the Medical Society of London, Jan. 4, 1869, a communication was read from Dr. B. Foster on Etherized Cod-liver Oil—that is, the addition of 10, 15, or 20 minims of pure ether to every 2 drachms of the oil, which he has found less nauseous, and more easily digested than the oil alone.

Medical Miscellany.

At the meeting of the Boylston Medical Society, held Friday, Feb. 19th, a first prize was awarded to Mr. F. W. Draper for an essay on the Physical and Therapeutical Relations of Ergot of Rye, and a second prize to Mr. J. J. Putnam for an essay on the Physical Principles which govern the application of Counter-irritants.

The Dental Faculty of Harvard University entertained and were entertained at Prof. Keep's on Wednesday evening of last week. In the course of the evening there was a lively discussion of the process of filling. At the same time, our types had just ranged themselves under the magic spell of "the Professor" to show how well the dentists have developed their wisdom teeth.

During the term of service, March, April and May, the undersigned will be happy to have practitioners and third-year students visit the Massachusetts Charitable Eye and Ear Infirmary any day from 9 to 11, A.M. Operations generally take place at 9½ to 10, A.M.

Hasket Derby,
F. P. Sprague,
B. Joy Jeffries,
Robert Willard.

Correction.—In the list of graduates of the Massachusetts Medical College, printed in our last issue, is the name of Dr. Erastus Emery. His residence should be given, we are requested to say, as Chatham, Mass., instead of Binghamton, N. Y.

We do not vouch for the following item, which has been sent us. A surgeon in a distant place is said to have removed a tumor weighing 63 lbs., and thinks of presenting it to General Grant.

A Professional Conundrum.—Why is a convalescent like the U. S. Treasury Department? Because he has got about well!

On Lumbar Colotomy. By C. F. Maunder, F.R.C.S.—There are several diseases or states of bowel in which this operation is practised.

1. For irremediable obstruction in order to prevent speedy death.

2. For obstinate stricture, malignant or benign, situated either high up or low down in the rectum, for which relief to distressing and exhausting symptoms cannot be obtained, after a judicious trial, by more simple measures.

3. For painful cancer of the rectum (non-obstructive), in which the patient's life is rendered miserable, and would soon be closed by exhaustion—consequent partly on excruciating pain caused by the passage of fæces over the diseased and exquisitely sensitive bowel, and depriving him both of appetite and of sleep; and partly on profuse discharges, purulent, sloughy, and sometimes dangerously hæmorrhagic. In this instance, the disease, though incurable, progresses more slowly when the morbid structures are no longer irritated, and a vast amount of pain is prevented.

4. For irremovable tumor of the rectum.—*London Med. Times and Gazette.*

Death in the Vat.—A sad accident, causing the deaths of two men, at Trowbridge, during the past week, by suffocation from carbonic acid in a beer vat, reminds us of having, some years ago, seen a suggestion made in a Calcutta newspaper that there should be attached to all such vats a light elastic tube, with wire coiled on the inside to prevent constriction, and a mask, with a valve to permit the escape of expired air, to be applied, in all cases, over the face of a person descending for the purpose of cleaning out the vat. Had such an apparatus been in use in the instance under notice, two lives would have been saved. When a vat contains refuse hops and grains above the level of the outflow tap, it is, of course, impossible for poisonous gases to escape through that channel, so that opening the tap for some hours will not necessarily evacuate the gaseous contents, and, time being valuable in these go-ahead days, it seems to us that it would be extremely desirable that a simple apparatus, such as that above described, should be introduced for trial at least in some of our large breweries.—*Ibid.*

MEDICAL DIARY OF THE WEEK.

Monday, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.
Tuesday, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10–11, A.M., Massachusetts Eye and Ear Infirmary.
Wednesday, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., Operations.
Thursday, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.
Friday, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., Operations. 9 to 11, A.M., Boston Dispensary.
Saturday, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., Operations.

To Correspondents.—The following communication has been received:—Galvanism as an Antidote for Poisoning by Gelseminum Sempervirens.

Dr. O'G.'s remittance received from abroad.

Pamphlets Received.—The Life of the Trichina, By Rudolph Virchow, M.D., Ph.D., Prof. University of Berlin. Translated by Rufus King Brown.—Fifty-fifth Annual Report of the Trustees of the Massachusetts General Hospital, 1868.—Addresses delivered at the Twentieth Annual Commencement of the Medical Department of Georgetown College, D. C., with a Catalogue of the Faculty and Students.

Deaths in Boston for the week ending Saturday noon, March 13th, 107. Males, 54—Females, 53.—Accident, 3—aneurism, 1—apoplexy, 1—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 1—burns, 1—cancer, 1—canker, 2—cholera infantum, 1—consumption, 18—convulsions, 7—croup, 3—cyanosis, 1—debility, 1—dropsy of the brain, 1—erysipelas, 2—scarlet fever, 10—typhoid fever, 1—hæmorrhage, 1—disease of the heart, 4—infantile disease, 4—insanity, 2—disease of the kidneys, 4—congestion of the lungs, 2—inflammation of the lungs, 9—marasmus, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 3—puerperal disease, 1—scrofula, 1—teething, 1—tumor, 1—unknown, 10—whooping cough, 1.

Under 5 years of age, 51—between 5 and 20 years, 8—between 20 and 40 years, 17—between 40 and 60 years, 16—above 60 years, 15. Born in the United States, 76—Ireland, 23—other places, 8.